NASA Case No. KSC-12278

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Jesus A. Dominguez)
Serial No.:	Unknown	,)
Filed:	Herewith	,) `
Title:	Image Edge Extraction Via	,))

Mail Stop Patent Applications Attn: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the requirements of 37 CFR 1.97 and 1.98, applicants hereby request that the references listed in the attached form PTO/SB/08A be considered and made of record in the above-identified application.

Respectfully Submitted,

Randall M. Heald Attorney for Applicant Registration No. 28,561

Date: Furumy/9, 20

Mailing Address:

NASA, John F. Kennedy Space Center

Mail Code: CC-A

Kennedy Space Center, FL 32899 Telephone No.: (321) 867-7214

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Attorney Docket Number | KSC=12278

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO **Application Number** Unknown Filing Date Herewith INFORMATION DISCLOSURE First Named Inventor Jesus Dominguez STATEMENT BY APPLICANT Art Unit (Use as many sheets as necessary) **Examiner Name**

Sheet 1

Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
Initials*	Cite No.1	Number-Kind Code ^{2 (# known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
	AA	^{US-} 6,347,153	02-12-2002	Triplett et al.	
	AB	^{US-} 6,285,801	09-04-2001	Mancuso et al.	
	AC	us- 6,094,508	07-25-2000	Acharya et al.	
	AD	^{US-} 5,870,495	02-09-1999	Mancuso et al.	
	AE	^{US-} 5,799,111	08-25-1998	Guissin	
	AF	^{US-} 5,761,326	06-02-1998	Brady et al.	
	AG	us- 5,754,709	05-19-1998	Moriya et al.	
-	AH	us- 5,651,077	07-22-1997	Dong et al.	
	Al	^{US-} 5,590,220	12-31-1996	Takahashi	
	AJ	US- 5,481,620	01-02-1996	Vaidyanathan	
	AK	us- 5,442,462	08-15-1995	Guissin	
	AL	^{US-} 5,434,927	07-18-1995	Brady et al.	
	AM	^{US-} 5,377,020	12-24-1994	Smitt	
	AN	us- 5,179,599	01-12-1993	Formanek	
		US-			
	1	US-			

FOREIGN PATENT DOCUMENTS						
Examiner Cite Initials* No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages		
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T⁵
						ᄂ
	<u> </u>					╙
						L
						<u> </u>
						L
	ļ					

Examiner	Date	
Signature	Considered	
٠ ١		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND

TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	Substitute for form 1449/PTO		Complete if Known			
Substitu	Re for form 1449/P1C	,		Application Number	Unknown	
INF	ORMATIO	N DIS	CLOSURE	Filing Date	Herewith	
STA	STATEMENT BY APPLICANT			First Named Inventor	Jesus Dominguez	
				Art Unit		
(Use as many sheets as necessary)			ecessary)	Examiner Name		
Sheet	2	of	2	Attorney Docket Number	KSC-12278	フ

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	ВА	DOMINGUEZ, JESUS, et al., Implementation of a General Real-Time Visual Anomaly Detection System via Fuzzy Reasoning and Neural-Generic Network,	
		The 10th IEEE Conference on Fuzzy Systems, The University of Melbourne, Australia, Dec. 2-5, 2001	
	ВВ	CHANG, YAN et al., Comparison of Five Conditional Probabilities in 2-level Image Thresholding Based on Baysian Formulation, The University of Sydney, Australia, pp. 1-6	
	вс	PAPAMARKOS, NIKOS, A Technique for Fuzzy Document Binarization, Dept. of Electrical and Computer Engineering, Democritus University of Thrace, 67100 Xanthi, Greece, p. 152-156	
	BD	HUANG, LIANG-KAI, et al., Image Thresholding By Minimizing the Measures of Fuzziness, Pattern Recognition, Vol. 28, No. 1, pp. 41-51 (1995)	
	BE	OTSU, N., A Threshold Selection Method From Gray-Level Histograms, IEEE Transactions on Systems, Man, and Cybennetics, Vol. 9, No. 1, pp. 62-66 (1979)	
	BF,	DOMINGUEZ, JESUS, ET AL., Detecting Edges in Images by Use of Fuzzy REasoning, NASA Tech Briefs, November 2003	

	**		
Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.